

Hurricane Ida, August 2021

U.S. Department of Agriculture, National Agricultural Statistics Service

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Table 1 shows sugarcane acres in several Louisiana parishes. Acres are based on the 2017 Census of Agriculture for acres harvested.

Table 1

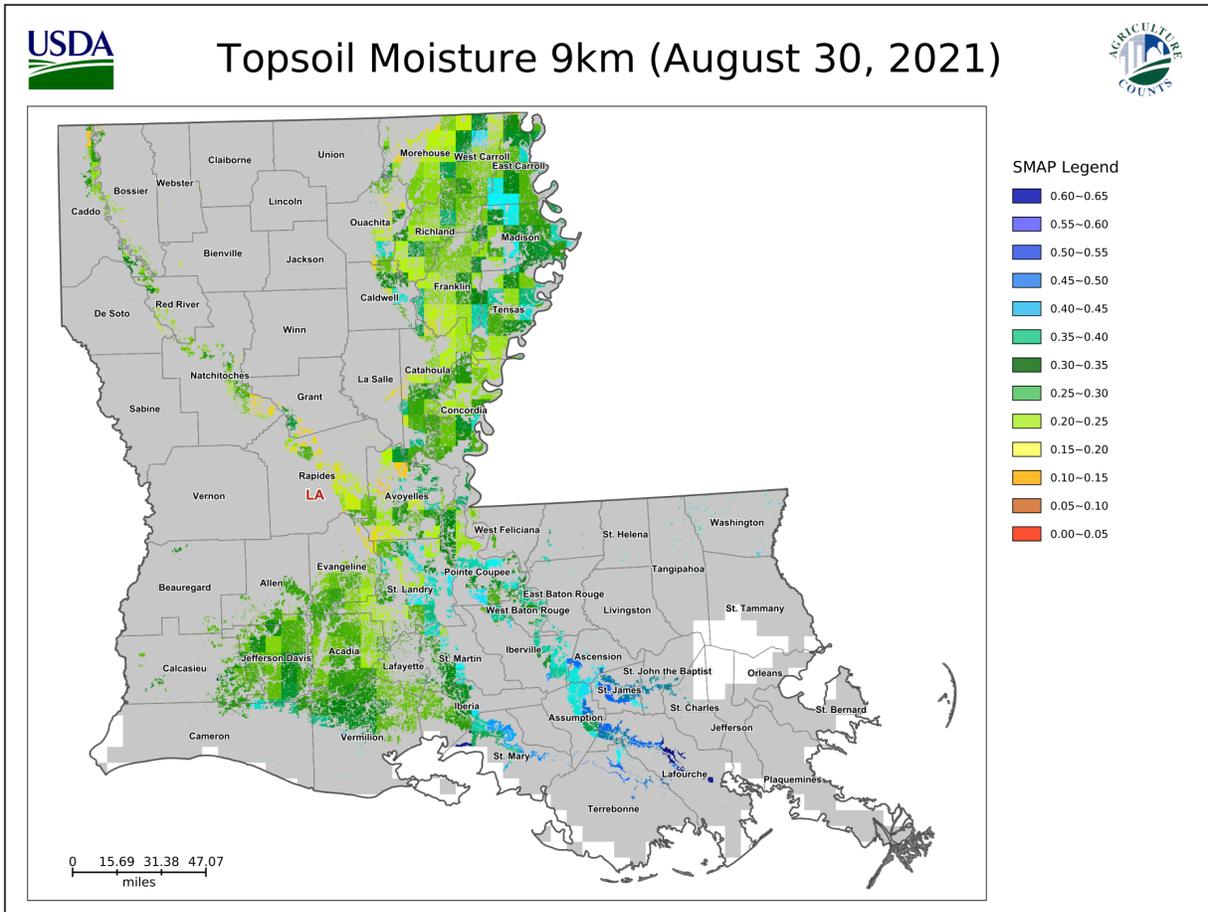
Sugarcane Acres		
Louisiana Parish	Sugarcane - Seed, Acres Harvested (2017 Census of Agriculture)	Sugarcane - Sugar, Acres Harvested (2017 Census of Agriculture)
Acadia	566	4,848
Ascension	1,186	10,281
Assumption	4,288	45,267
Avoyelles	689	12,940
Evangeline	N/A	NA
Iberia	3,626	51,891
Iberville	3,031	36,351
Lafayette	435	6,337
Lafourche	2,071	27,371
Pointe Coupee	2,623	31,106
Rapides	533	8,610
St. Charles	N/A	NA
St. James	2,825	28,474
St. John the Baptist	888	10,316
St. Landry	845	11,564
St. Martin	2,759	29,455
St. Mary	3,641	46,905
Terrebonne	2,137	18,015
Vermilion	2,708	22,691
West Baton Rouge	875	11,940

Topsoil Moisture

NASA Remotely Sensed Surface Soil (topsoil) is defined as the top 2 inches (approximately 5 centimeters). The NASA SMAP 9km soil moisture measurements are volumetric soil moisture (i.e. volumetric water content in the soil). It is simply the ratio of water volume to soil volume.

Topsoil moisture above 0.4 cm³/cm³ (40% water content) could be considered very wet.

Figure 1



Produced by VegScape - <http://nassgeodata.gmu.edu/VegScape>

The percentage of total cropland which is above 40% in Louisiana is highlighted in pink in Table 2.

Table 2

Topsoil Moisture (9km, August 30, 2021)	
Volumetric Soil Moisture (cm³/cm³)	Louisiana
	Percentage of Total Cropland
0.0-0.05	0.00%
0.05-0.1	0.00%
0.1-0.15	0.60%
0.15-0.2	8.54%
0.2-0.25	28.12%
0.25-0.3	34.34%
0.3-0.35	14.28%
0.35-0.4	8.75%
0.4-0.45	1.71%
0.45-0.5	0.97%
0.5-0.55	2.32%
0.55-0.6	0.01%
0.6-0.65	0.07%
> 0.65	0.29%
Total	100.00%

**Total Cropland derived by 2020 Cultivated Layer hosted on Crop-CASMA.

Table 3 identifies sugarcane (2020 Cropland Data Layer) that are planted in soils with greater than 40% topsoil moisture on August 30, 2021.

Table 3

Topsoil Moisture (9km, August 30, 2021)	
Louisiana Parish	Percentage of Sugarcane > 0.4 Volumetric Soil Moisture
Acadia	0.00%
Ascension	10.32%
Assumption	5.49%
Avoyelles	0.00%
Evangeline	0.00%
Iberia	1.04%
Iberville	2.12%
Lafayette	0.00%
Lafourche	22.10%
Pointe Coupee	1.97%
Rapides	0.00%
St. Charles	22.06%
St. James	22.24%
St. John the Baptist	22.24%
St. Landry	0.76%
St. Martin	0.02%
St. Mary	11.09%
Terrebonne	16.38%
Vermilion	0.01%
West Baton Rouge	0.00%

**Crop type percentages determined by 2020 Cropland Data Layer and are not official NASS estimates.

Topsoil Moisture Anomaly

The soil moisture anomaly (SMA) in CropCASMA is a measure of deviation of the current soil moisture value from the "normal" soil moisture level, which is represented by a historical average soil moisture value (from 2015 to current). The SMA of a given location is defined by the following formula:

$$SMA = \frac{SM - SM_m}{SM_m} \times 100\%$$

where SM and SM_m denote current soil moisture value and the historical average soil moisture value of a given location.

Soil moisture anomaly above 30% could be considered very abnormal, which means there is 30% more soil moisture than normal conditions.

Figure 2

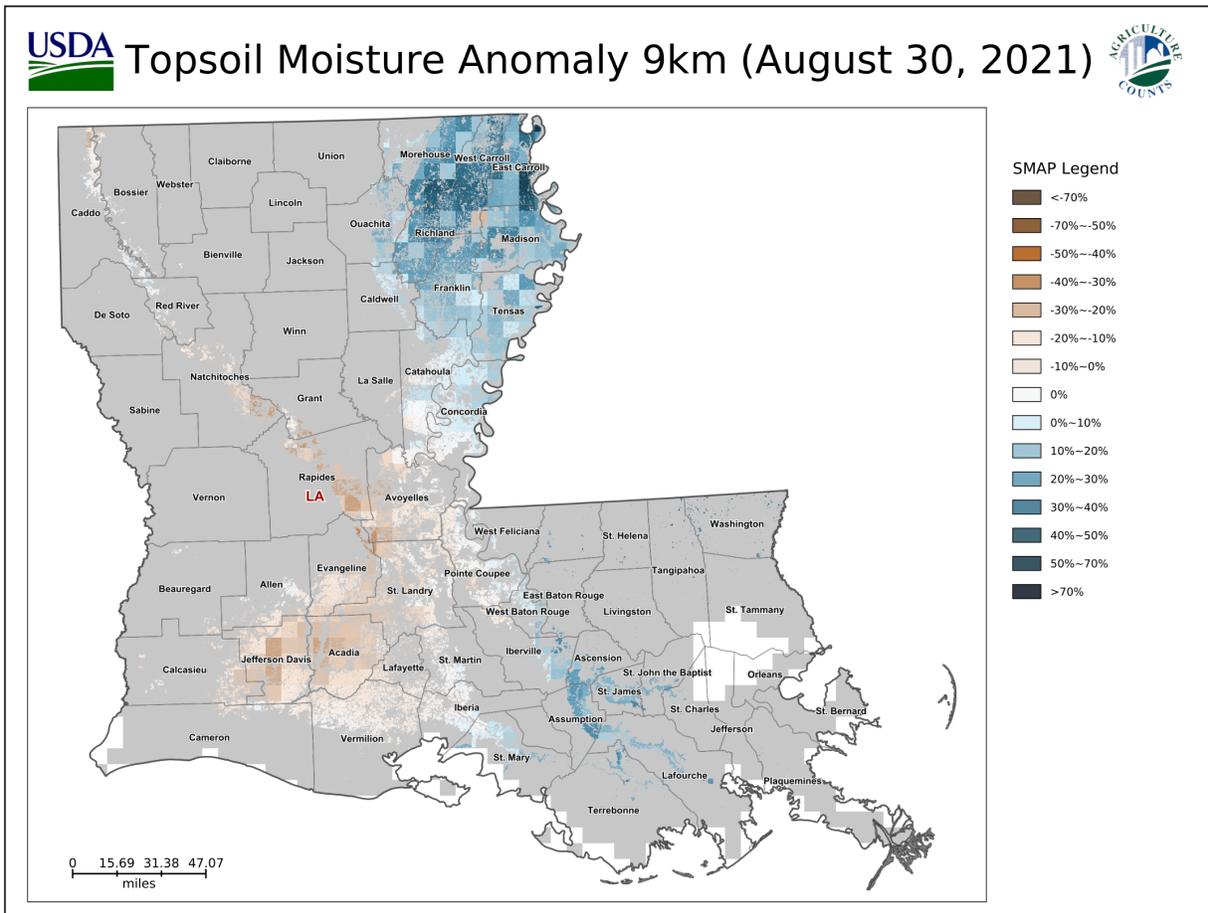


Table 4 identifies the percentage of total cropland in Louisiana at different levels of soil moisture anomaly. The percentages of total cropland with greater than 30% more soil moisture than normal are highlighted in pink.

Table 4

Topsoil Moisture Anomaly (9km, August 30, 2021)	
Soil Moisture Anomaly	Louisiana
	Percentage of Total Cropland
<-70%	0.00%
-70%~-50%	0.00%
-50%~-40%	0.00%
-40%~-30%	0.00%
-30%~-20%	2.39%
-20%~-10%	17.36%
-10%~0%	23.70%
0%~-10%	11.84%
10%~20%	17.44%
20%~30%	15.89%
30%~40%	7.82%
40%~50%	2.87%
50%~70%	0.68%
>70%	0.00%
Total	100.00%

**Total Cropland derived by 2020 Cultivated Layer hosted on Crop-CASMA.

Table 5 identifies sugarcane (2020 Cropland Data Layer) that are planted in soils with greater than 30% greater soil moisture than normal conditions on August 30, 2021.

Table 5

Topsoil Moisture Anomaly (9km, August 30, 2021)	
Louisiana Parish	Percentage of Sugarcane > 30% Soil Moisture Anomaly
Acadia	0.00%
Ascension	1.60%
Assumption	5.72%
Avoyelles	0.00%
Evangeline	0.00%
Iberia	0.00%
Iberville	0.87%
Lafayette	0.00%
Lafourche	0.55%
Pointe Coupee	0.00%
Rapides	0.00%
St. Charles	0.01%
St. James	1.38%
St. John the Baptist	0.69%
St. Landry	0.00%
St. Martin	0.00%
St. Mary	0.00%
Terrebonne	7.02%
Vermilion	0.00%
West Baton Rouge	0.00%

**Crop type percentages determined by 2020 Cropland Data Layer and are not official NASS estimates.